

Junctions of ultrathin wires form tiny electronic devices, including transistors. Such crossings offer one of several new routes to extremely small circuits.

● Researchers made electronic circuits from transistors as small as single molecules to circumvent limits on today's methods (159: 286, 335; 160: 294, 367).

● Doctors tested high-intensity ultrasound devices for incision-free surgery with sound waves (159: 12).

● Biology and electronics drew closer as scientists devised ways to grow nerve and liver cells on silicon microchips (159: 230; 160: 216).

● In a step toward widespread microcircuits that are exceptionally fast and manipulate light, a new method of growing crystals induced high-

performance semiconductors to adhere to ordinary silicon (160: 164\*).

● The first transatlantic surgery took place when physicians in New York electronically manipulated a robot in Strasbourg, France, to remove a woman's gall bladder (160: 216).

● Engineers unveiled a self-healing material containing microspheres that release glue when a crack develops (159: 101\*).

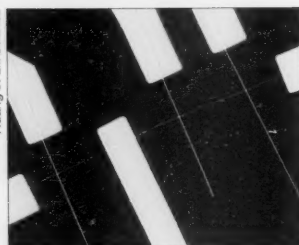
● A gasoline-distilling device for cars captured the most volatile hydrocarbons for use in cold starts and lowered emissions of unburned fuel (159: 39\*).

This is a review of important science stories of 2001 reported in the pages of SCIENCE NEWS. The reference after each item gives the volume and number of the page on which the main article on the subject appeared (vol. 159 is January-June; vol. 160 is July-December). An asterisk (\*) indicates that the text of the item is available to all viewers on SCIENCE NEWS ONLINE (<http://www.sciencenews.org>). Full text of any article can be obtained free by SCIENCE NEWS subscribers at that site or purchased for \$2.50 from ProQuest (<http://pqasb.pqarchiver.com/sciencenews>). Back issues are available for \$3 (prepaid). Send orders to SCIENCE NEWS, 1719 N Street, N.W., Washington, D.C. 20036.

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